

ATLANTIC TESTING LABORATORIES, LIMITED

Sustaining Member—N.Y.S. Society of Professional Engineers

al

January 30, 1986

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Canton, N.Y. 13617
(315) 386-4578

Box 356
Cicero, N.Y. 13039
(315) 699-5281

U.S. Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, MA 02254-9149

Attn: Mr. Richard D. Reardon

Re: Acushnet River Superfund Site
New Bedford, MA
ATL Report No. CD005-11-85
Contract DACW-33-85-D-0011
Delivery Order No. 0005

Gentlemen:

In accordance with Delivery Order No. 0005, dated 26 September 1985, attached is one copy of our final Seismic Investigation Report for the Upper Acushnet River Estuary Superfund Site in New Bedford, MA.

By copy of this letter, we are also transmitting two copies of this report to the Chief of the Geotechnical Engineering Branch.

If you have any questions or comments, please do not hesitate to call.

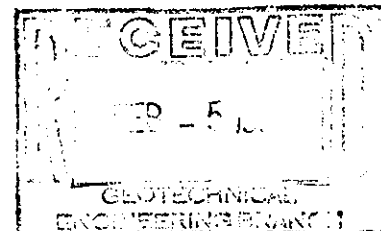
Respectfully submitted,


Spencer B. Thew, P.E./L.S.
President

SFT/smf

encs.

cc: Chief, Geotechnical Engineering Branch (2)



SECTION 1

**SEISMIC INVESTIGATION
ACUSHNET RIVER SUPERFUND PROJECT
NEW BEDFORD, MA**

**CONTRACT DACW-33-85-D-0011
CONTRACTING OFFICER:
Edward D. Hammond, LTC, CE
28 June 1985**

**DELIVERY ORDER NO. 0005
26 September 1985**

**PREPARED FOR: U.S. Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, MA 02254-9149**

**PREPARED BY: Theresa A. Beddoe
Atlantic Testing Laboratories, Limited
P. O. Box 29
Canton, NY 13617**

November 26, 1985

ATL Report No. CD005-1-11-85

SECTION 2

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SECTION 3

SCOPE OF INVESTIGATION

a. DELIVERY ORDER NO. 0005

<input type="checkbox"/> CHECKED BOX APPLIES <input checked="" type="checkbox"/> ORDER FOR SUPPLIES OR SERVICES		<input type="checkbox"/> REQUEST FOR QUOTATIONS NO RETURN COPY OF THIS QUOTE TO: (THIS IS NOT AN ORDER See DD Form 1155r)		PAGE 1 OF 2	
CONTRACT NO JACW33-85-D-0011		2 DELIVERY ORDER NO 0005		3 DATE OF ORDER 95 SEPT 26	
ISSUED BY Dept. of the Army New England Division, Corps of Engineers 24 Trapelo Road Waltham, MA 02254-9149 Buyer/Symbol: Douglas/NEDSD-P Phone: AC 617-647-8415		4 REQUESTION PURCH REQUEST NO GEB 85-85		5 CERTIFIED FOR NATIONAL DEFENSE UNDER DMS REG 1 DO	
6 DELIVERY FOR <input checked="" type="checkbox"/> DEST <input type="checkbox"/> OTHER (See Schedule if other)		7 ADMINISTERED BY If other than 6: CODE		8 DELIVERY FOR <input checked="" type="checkbox"/> DEST <input type="checkbox"/> OTHER (See Schedule if other)	
9 CONTRACTOR/QUOTER CODE		10 FACILITY CODE		11 CHECK IF BUSINESS <input checked="" type="checkbox"/> SMALL <input type="checkbox"/> SMALL DISADVANTAGE <input type="checkbox"/> WOMEN OWNED	
NAME AND ADDRESS Atlantic Testing Laboratories, Ltd. P. O. Box 29 Canton, N.Y. 13617		12 DISCOUNT TERMS NET		13 MAIL INVOICES TO Finance & Accounting Officer at issuing office	
14 Service for: New England Division, Corps of Engineers Engineering Division At issuing office		15 PAYMENT WILL BE MADE BY Finance & Accounting Officer at issuing office		MARK ALL PACKAGES AND PAPERS WITH CONTRACT OR ORDER NUMBER	

DELIVERY PURCHASE	<input checked="" type="checkbox"/>	This delivery order is subject to instructions contained on this side of form only and is subject to the terms and conditions of above numbered contract.	
	<input type="checkbox"/>	Reference your _____ furnish the following on terms specified herein, including, for U.S. purchases, General Provisions of Purchase Order on DD Form 1155r (EXCEPT CLAUSE NO 12 APPLIES ONLY IF THIS BOX <input type="checkbox"/> IS CHECKED, AND NO 14 IF THIS BOX <input type="checkbox"/> IS CHECKED); special provisions _____ and delivery as indicated. This purchase is negotiated under authority of _____	

1. CHECKED; special provisions _____
 2. USC 2304(a)(3) or as specified in the schedule if within the U.S., its possessions or Puerto Rico otherwise under 2304(a)(6)
 3. If checked, Additional General Provisions apply. Supplier shall sign "Acceptance" on DD Form 1155r and return _____
 4. ACCOUNTING AND APPROPRIATION DATA/LOCAL USE
96X3122
B 233821000000

Contract Line	SCHEDULE OF SUPPLIES/SERVICES	20 QUANTITY ORDERED ACCEPTED *	21 UNIT	22 UNIT PRICE	23 AMOUNT
	Furnish necessary equipment and personnel to perform Seismic Survey Exploration at Upper / Acushnet River/ Estuary Superfund Site in accordance with attached instructions.	<u>APPROX.</u>			<u>ESTIMATED</u>
3.1	Mobilization and Demobilization	1	Job	\$180.00	\$180.00
3.2	Mileage from/to Waltham, MA	100	MI	.35	35.00
3.4	Survey Crew and Equipment	3	Day	440.00	1,320.00
3.5	Overnight Per Diem for Survey Crew	3	Day	90.00	270.00

* If quantity accepted by the Government is same as quantity ordered, indicate by ✓ mark. If different, enter actual quantity accepted below quantity ordered and encircle		24 UNITED STATES OF AMERICA EDWARD D. HAMMOND, LTC, CE Deputy Division Engineer		25 TOTAL \$15,385.00	
26 QUANTITY IN COLUMN 20 HAS BEEN: <input type="checkbox"/> INSPECTED <input type="checkbox"/> RECEIVED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED		27 SHIP NO <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		28 D.O. VOUCHER NO. 29 PAID BY	
30 SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE _____		31 PAYMENT <input type="checkbox"/> CASH <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		32 INITIALS 33 AMOUNT VERIFIED CORRECT FOR	
34 SIGNATURE AND TITLE OF CERTIFYING OFFICER _____		35 BILL OF LADING NO		36 D.O. VOUCHER NO	

CONTINUATION SHEET

REF. NO. DC. BEING CONT'D.
 Delivery Order No. 0005
 DACW33-85-D-0011

PAGE 2 OF 2

NAME OF OFFEROR OR CONTRACTOR

Atlantic Testing Laboratories, Ltd.

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
3.6	Data Reduction & Plotting	1	Job	100% of 3.4	1320.00
3.7	Standby Time	8	HR	55.00	440.00
27.1	Mobilization & Demobilization (Reflection) with Floating Plant	1	Job	2400.00	2400.00
27.2	Mileage from/to Waltham, MA	100	MI	1.20	120.00
27.4	Seismic Crew & Equipment	3	Day	1650.00	4950.00
27.5	Overnight Per Diem for Seismic Crew	3	Day	140.00	420.00
27.6	Data Reduction & Report	1	Job	60% of 27.4	2970.00
27.7	Standby Time	8	HR	120.00	960.00

ATTACHMENT NO. 1
GEB REQUISITION NO. 85-85 DACW 33-85-D-0011
SURVEY DELIVERY ORDER NO. 0005
SURVEY AND EXPLORATION INSTRUCTIONS

PROJECT: General Investigation for Acushnet River Superfund Project.

SITE: Upper Acushnet River Estuary Superfund Site, New Bedford, MA.

PURPOSE: Seismic surveys on water are required to determine depths to rock in the estuary and engineering characteristics and distributions of bottom sediments.

1. SCOPE OF INVESTIGATION.

a. Seismic survey lines shall be performed for a total of about 22,000 feet as shown on Attachment 2. The lines shall be located according to the established Corps of Engineers survey control points shown on Attachment 3. Mean Low Water (MLW) will be the datum used on all seismic lines and throughout the geotechnical report.

b. The locations of lines shown are approximate. The lines actually accomplished shall be as close as possible to the lines shown but may deviate in the field as governed by the minimum depth of water needed to operate the equipment.

c. Bottom sediments shall not be disturbed.

d. The senior investigator shall provide telephone reports to Mr. Blair, Corps of Engineers, at 617-647-8396 each work day to report on the progress of the work.

2. SITE CONDITIONS.

The proposed exploration program is located in Upper Acushnet River Estuary located on Attachment 2. Known water depths limited and are shown on Attachment 3. Extremely shallow depths are expected close to the shorelines.

3. RIGHTS OF ENTRY.

The Contractor is responsible for securing any rights of entry, approvals, permits, etc. necessary for the performance of the work.

4. COORDINATION.

Mr. James Blair, Corps of Engineers, 617-647-8396, shall be contacted five days prior to start of work and each work day to report on how work is progressing and approximate depth to bedrock is being encountered.

5. EXPLORATION NUMBERS.

The seismic lines accomplished shall be numbered sequentially in order of their completion. The numbers shall be shown on the plan of completed explorations.

6. GOVERNMENT REVIEW.

The Government will review the draft submittal as well as the completed work. Subsequent to such review, the Contractor shall accomplish any corrections which may be directed as the result of the Government review.

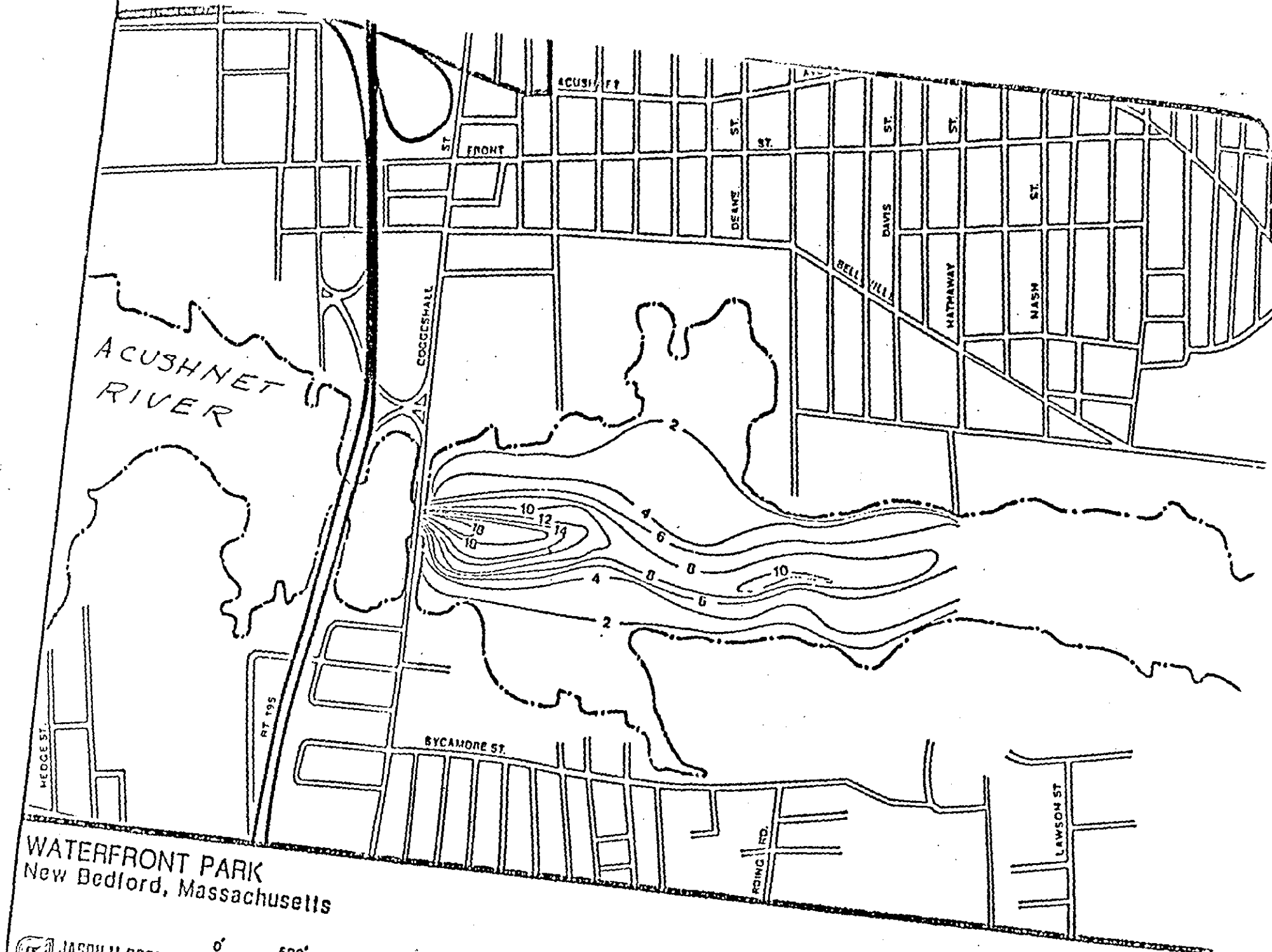
7. COMPLETION SCHEDULE.

Services under this delivery order shall start within seven calendar days after receipt of delivery order. Duration of field work is estimated to be three work days. The geotechnical report shall be submitted in draft format for review by the Government, postmarked no later than seven calendar days after completion of the field work. Government review will take approximately ten calendar days from receipt of draft report. The final geotechnical report shall be submitted postmarked no later than seven calendar days after receipt of draft report including the action taken on possible Government comments.

8. QUALITY CONTROL.

You will be held responsible for the quality of the text and plates submitted and for all damages caused the Government as a result of your negligence in the performance of any services furnished under the contract.

Although submissions required by your contract are technically reviewed by the Government, it is emphasized that your work must be prosecuted using proper internal controls and review procedures. The letter of transmittal for each submission which you make shall include a certification that the submission has been subjected to your own review and coordination procedures to insure (a) completeness for each discipline commensurate with the level effort required for that submission, (b) elimination of conflicts, errors and omissions, and (c) the overall professional and technical accuracy of the submission. Documents which are significantly deficient in any of these areas will be returned to you for correction and/or upgrading prior to our completing our review. Contract submission dates will not be extended if a resubmission of draft material is required for this reason.



Army Corps of Engineers
Waltham, Mass

New Bedford Ma
Loc Hor Control
8 Aug 1985

turned angles
17 legs

SPN ID: ~~Acushnet~~

PT.NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	239080.762	759085.549		191Y (MGS)
3	239616.525	759018.534		Cog (85)
4	240312.867	760177.772		Rio (85)
5	240474.083	758506.195		West (85)
6	241197.408	760307.944		Verander (85)
7	242176.478	758840.874		Coffin (85)
8	243982.153	759752.886		Junk (85)
9	244426.581	758597.020		Stock (85)
10	246020.239	759236.464		Aero (85)
11	247401.558	760236.514		Parking (85)
12	247969.399	760117.972		Bit (85)
13	247671.103	759155.491		Wood (85)
14	247585.754	758134.765		Ball (85)
15	245373.754	758215.608		Hyd (85)
16	244227.272	758173.591		Mill (85)
17	241943.386	757197.494		Sun (85)
18	239103.866	757384.327		Slope (85)
19	238858.231	756426.370		191X (MGS)

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

①

Waterway: Acushnet River

Station: Δ Cog. (85)

Coordinates:

N or S	E or W

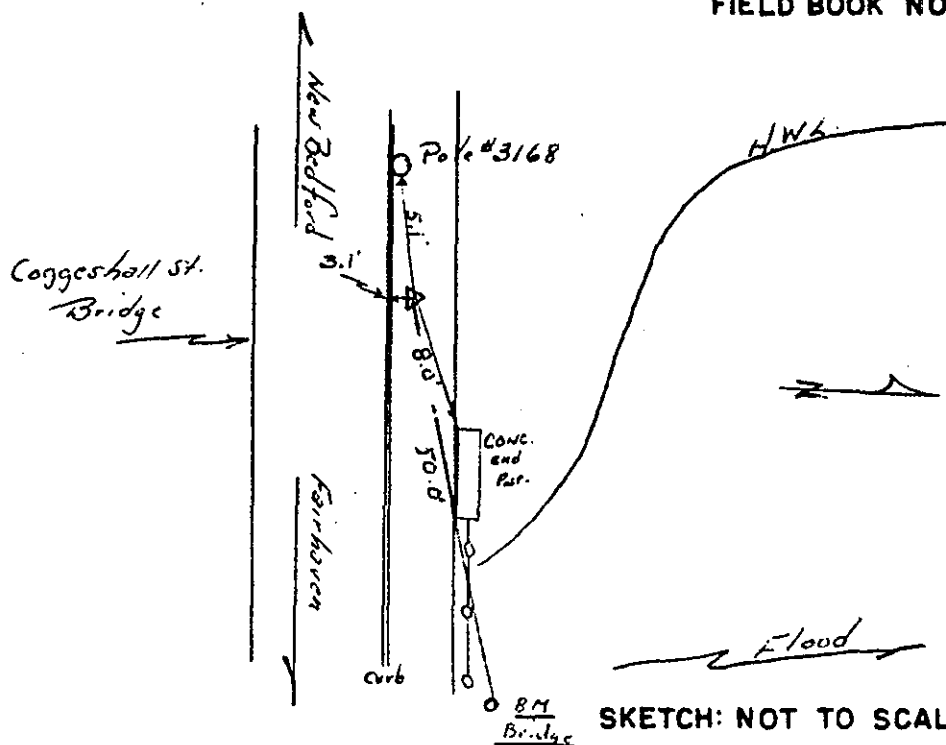
Origin DPW Sta. 191Y & 191Z

REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO
<u>Δ Veranda</u>	<u>42°-49'-39"</u>	<u>School Cupola</u>
	<u>150°-04'-18"</u>	<u>Weather Vane</u>
	<u>313°-44'-27"</u>	<u>Church Spire</u>
		<u>Wind Mill</u>

REFERENCES: BK RTH
FIELD BOOK NO. 2309



REMARKS: Δ Cog. (85) is a 1/2" d.H. in conc. sidewalk on the north side and west end of Coggeshall St Bridge.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

②

Waterway: Acushnet River

Station: A east (1965)

Coordinates:

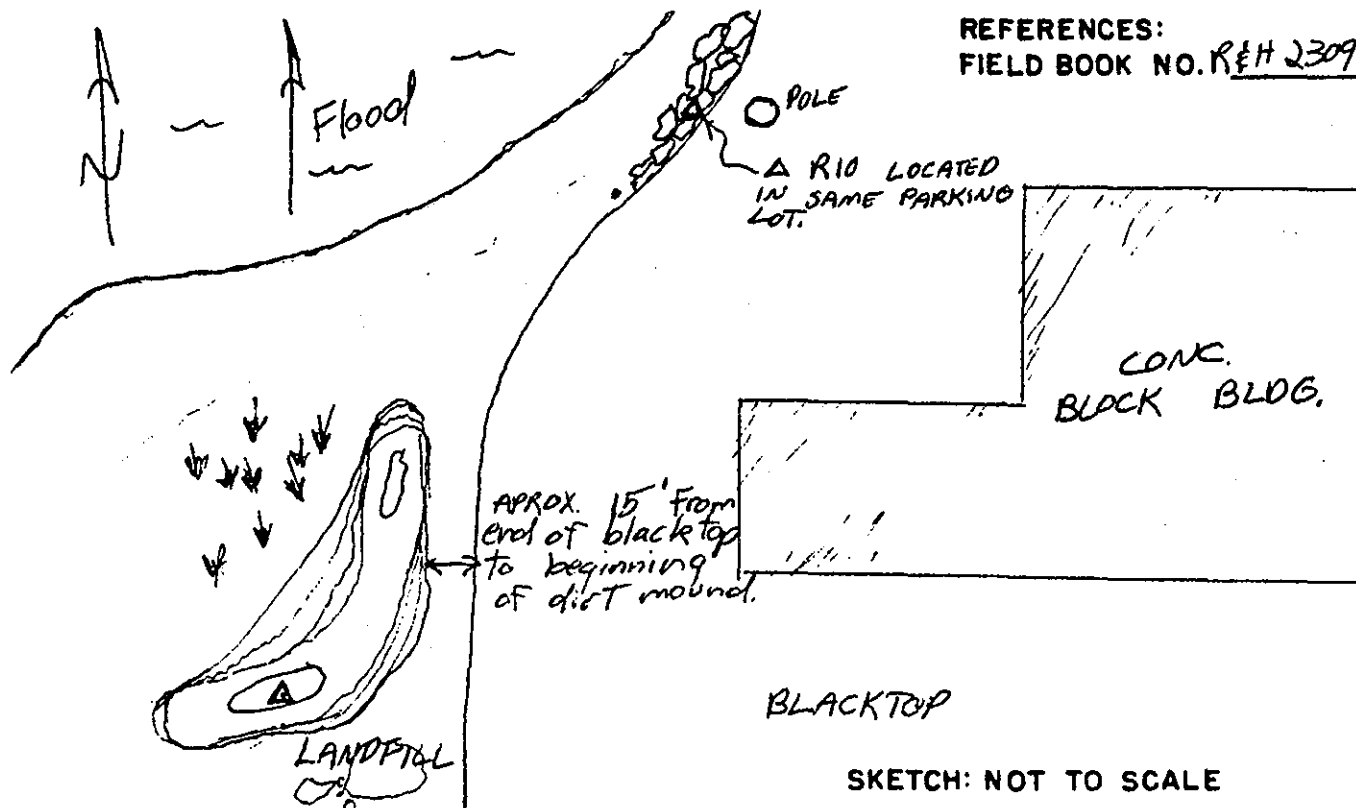
N or S	E or W

Origin

REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO
<u>A West (85)</u>	<u>259° 06' 43"</u>	<u>Most Easterly</u>
	<u>259° 25' 53"</u>	<u>Roadie Turner</u>
		<u>Cross on St. 7</u>
	<u>49° 51' 19"</u>	<u>Anthony Church</u>
		<u>Windmill</u>



REFERENCES:
FIELD BOOK NO. R&H 2309

REMARKS:

A east is a wooden stake set on
top of a dirt mound. It is located in
the same parking lot as Ario. The mound
is approx. 20' high and may only be temporary.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

(3)

Waterway: Acushnet River

Station: Δ Rio (85)

Coordinates:

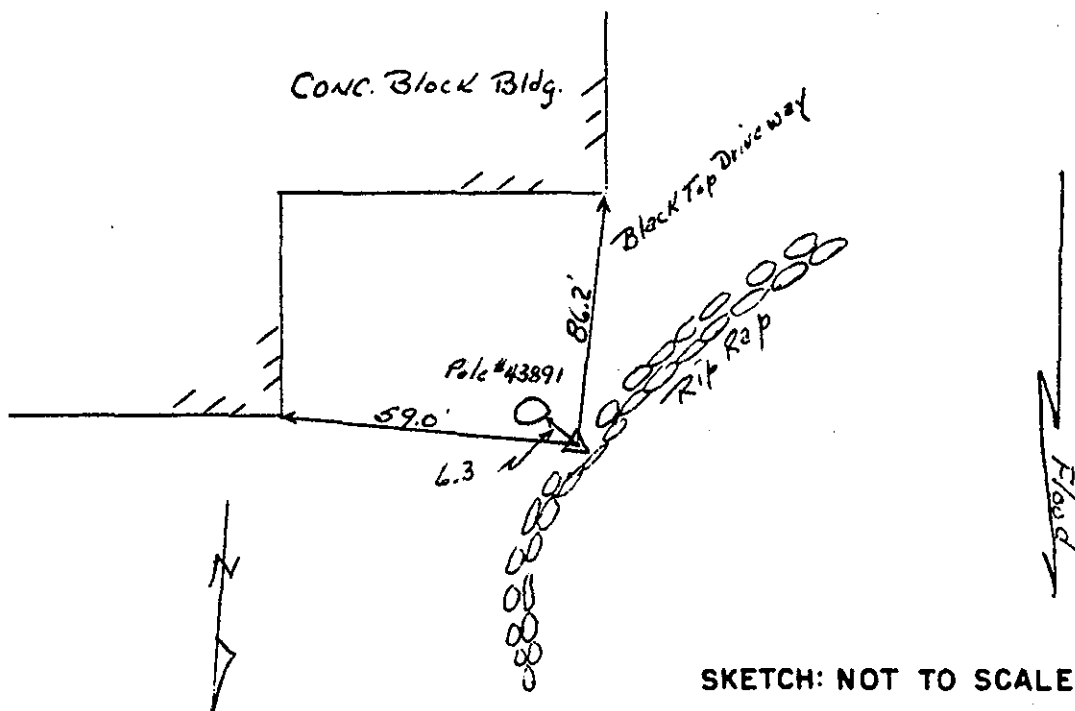
N or S	E or W

Origin

REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO	00° 00' 00" on	ANGLE	TO highest Pt.
			Δ West (85)	319°-08'-09"	1027 STREET +
				5°-20'-30"	Church Creek
				56°-01'-45"	CROSS ON ST. +
					ANTHONY'S Church
					Wind Mill

REFERENCES: BK. R/H
FIELD BOOK NO. 2309



REMARKS: Δ Rio (85) is a 1/2" d.H. in flat stone in top
of Rip Rap at near of Rio Shipping Center.
on Coggeshall St in Fairhaven.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

(4)

Waterway:

Acushnet River

Station:

Δ West. (1985)

Coordinates:

N or S	E or W

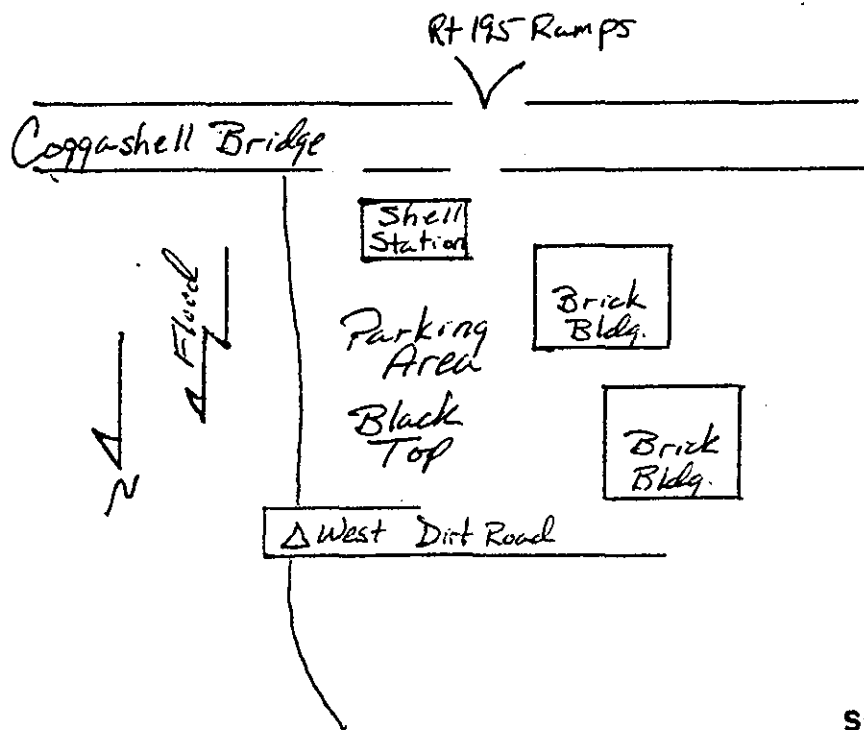
Origin

REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO	00° 00' 00" on	ANGLE	TO
<u>Δ Veranda (82)</u>	<u>30° 58' 10"</u>	<u>Weather Vane on School Cupola</u>			
	<u>236° 03' 02"</u>	<u>Gray Stone Cross on Church Spire</u>			
	<u>293° 04' 25"</u>	<u>Windmill</u>			

REFERENCES:

FIELD BOOK NORTH 2309



SKETCH: NOT TO SCALE

REMARKS:

Δ West is a 2 3/8" d.H. in concrete cap on sewer culvert 3 1/2' from end of the sewer culvert

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

(5)

Waterway:

Acushnet River

Station:

Δ Veranda (1985)

Coordinates:

N or S	E or W

Origin

REFERENCE ANGLES

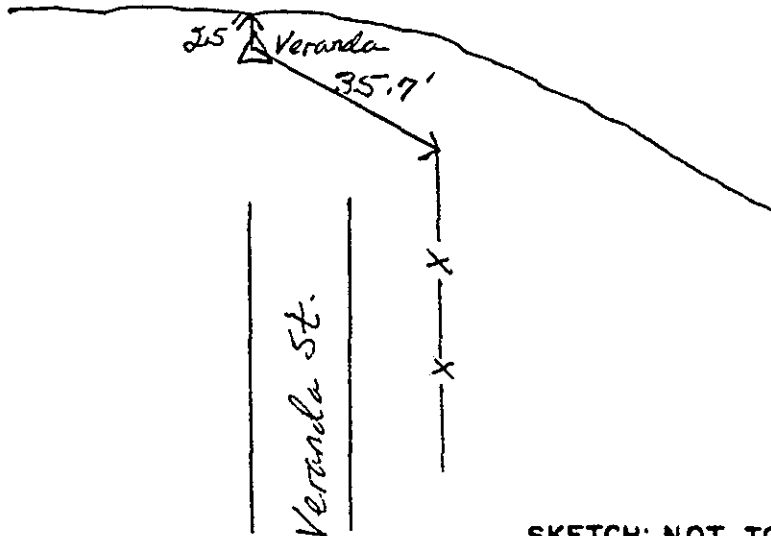
00°00'00" on	ANGLE	TO
Δ West (85)	18°	(ST. ANTHONY'S)
	18°	Cross on Church Spire
	18°	WIND MILL

00°00'00" on	ANGLE	TO
Δ West (85)	20°04'05"	Cross on St. Anthony's Church
	72°01'03"	WIND MILL
	245°08'54"	Weather Vane on School Cupola

Flood →

||| ||| ||| ||| Ledge Area

+++ Marsh



REFERENCES:

FIELD BOOK NO. RH2309

SKETCH: NOT TO SCALE

REMARKS:

Δ Veranda is a 1" galvanized pipe 2"± above the ground on line up South line of Veranda St. and 2.5' from top of bank

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

⑥

Waterway: ACUSHNET RIVER

Station: Δ COFFIN (1985)

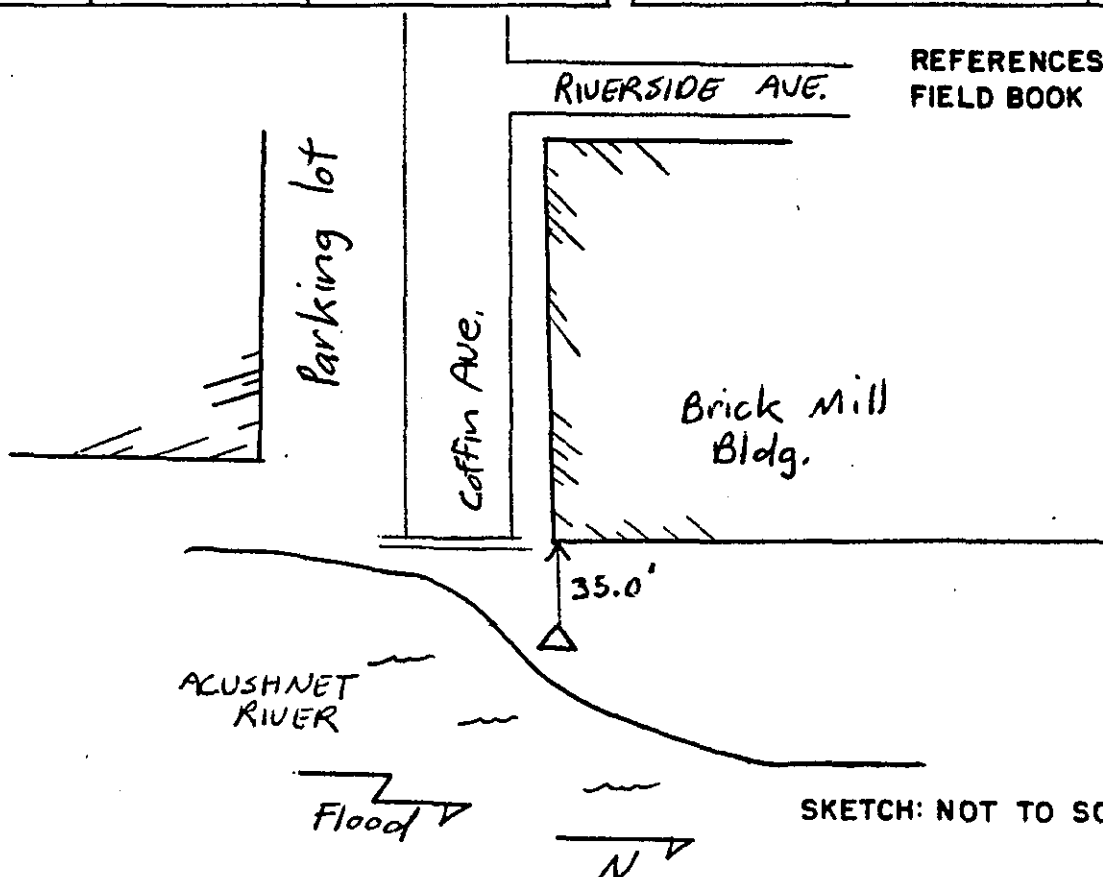
Coordinates:

N or S	E or W

Origin

REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO	00° 00' 00" on	ANGLE	TO
			<u>Δ Kumbia (85)</u>	<u>4°-48'-09"</u>	<u>Weather Vane on School Cupola</u>
				<u>123°-18'-25"</u>	<u>St. Anthony's Cross on Church Spire</u>
				<u>222°-18'-17"</u>	<u>Wind Mill</u>



REFERENCES:
FIELD BOOK NO. R&H 2309

REMARKS:

Δ Coffin is an Aluminum DISK STAMPED
U.S. ARMY CE SURVEY MARK. LOCATED 35' EAST
& on line w/ S. FACE OF BLDG. FLUSH w/ gr
IN GRASS AREA BETWEEN BLDG. & TOP OF BANK

U.S. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

⑦

Waterway:

Acushnet River

Station:

Δ Junk (1985)

Coordinates:

N or S	E or W

Origin

REFERENCE ANGLES

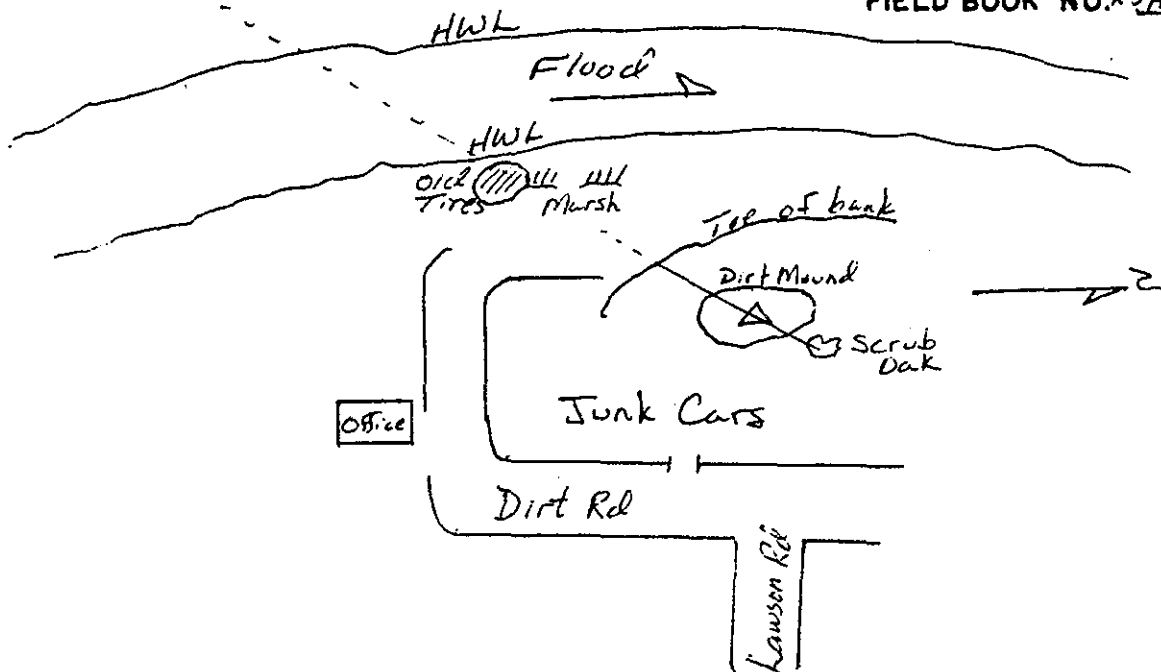
00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO
<u>Δ West (85)</u>	<u>30° 51' 26"</u>	<u>Cross on St. + Anthony's Church</u>
	<u>40° 00' 42"</u>	<u>Windmill</u>
	<u>344° 56' 20"</u>	<u>Most Westerly Radio Tower</u>

Shell Sign

REFERENCES:

FIELD BOOK NO. R3H2309



SKETCH: NOT TO SCALE

REMARKS:

Δ Junk is an aluminum disk stamped
U.S. Army CoE. Survey disk flush with the
ground up on a small knoll. It is in
Riverside Auto Salvage at the end of
Lawson St.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

8

Waterway:

Acushnet River

Station:

Δ Stack (1985)

Coordinates:

N or S	E or W

Origin

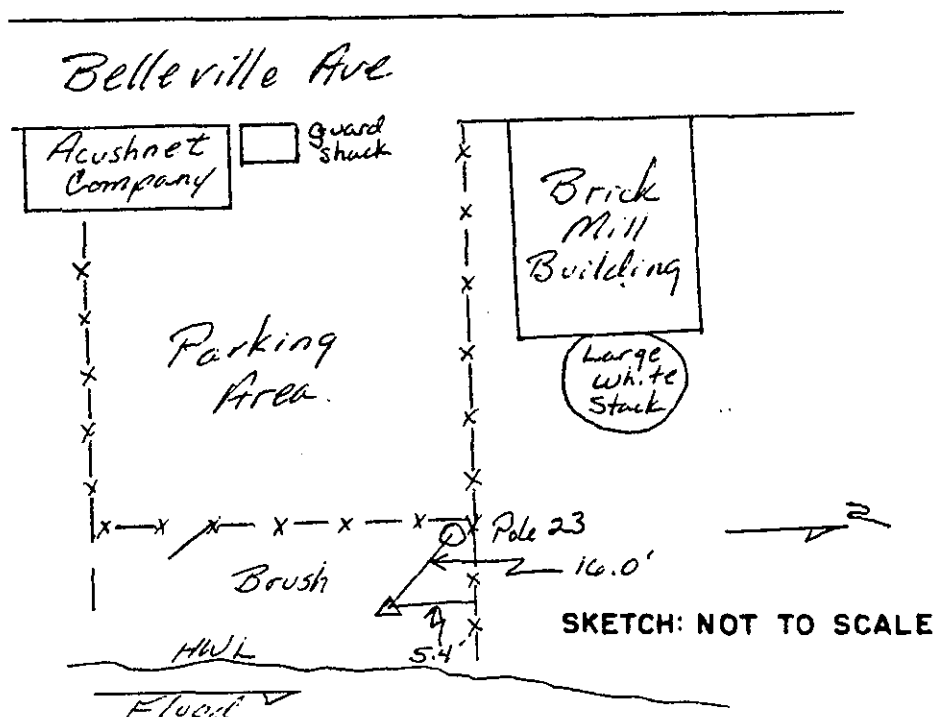
REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO
<u>Δ Versada (85)</u>	<u>353°-52'-05"</u>	<u>Weather Vane on School Computer</u>
	<u>16°-26'-09"</u>	<u>Most Easterly Radio Tower</u>
	<u>29°-30'-55"</u>	<u>Wind Mill</u>

REFERENCES:

FIELD BOOK NO. RH2309



REMARKS:

Flush ✓

Δ Stack is an aluminum disk stamped U.S. Army CE Survey Marker which is flush with the ground between the fence and top of bank.
Note: Stop @ guard shack for visitors pass.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

⑨

Waterway:

Acushnet River

Station:

Δ Aero (1985)

Coordinates:

N or S	E or W

Origin

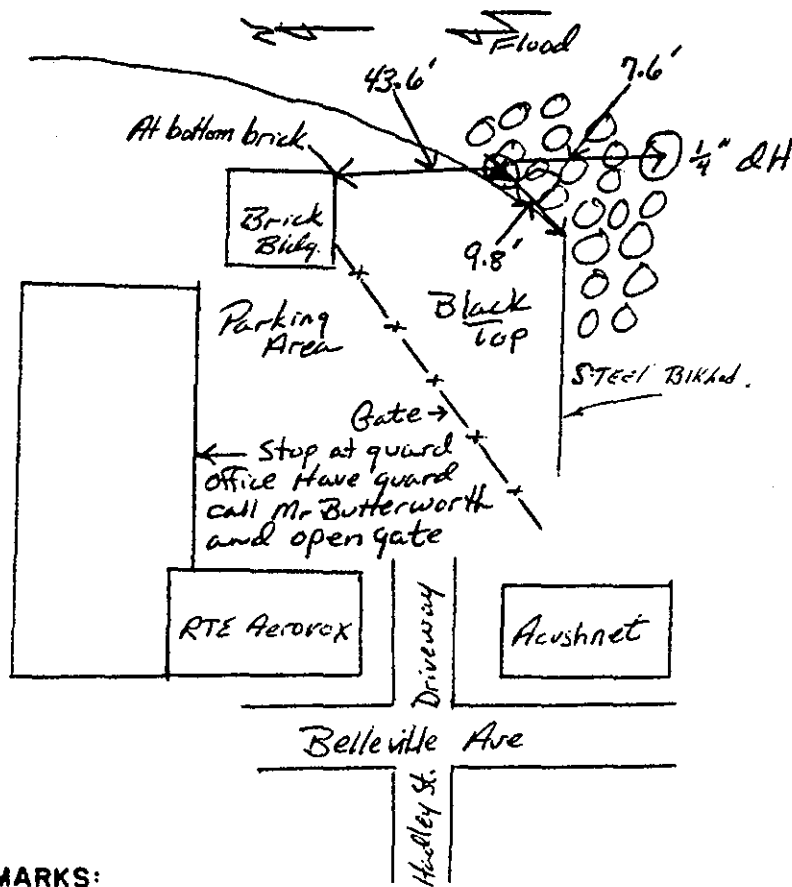
REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO
Δ Parking (85)	47°-00'-56"	TO TALLEST ANTENNA
	175°-21'-48"	ON CEM. Bldg. CROSS ON ST.
	157°-53'-07"	ANTHONY'S Church
		Wind Mill

REFERENCES:

FIELD BOOK NO. RTH 2309



SKETCH: NOT TO SCALE

REMARKS:

Δ Aero (85) is a 2 3/8" d.H. in stone rip rap
around steel bulkhead on property of Aerovox

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

⑩

Waterway:

Acushnet River

Station:

Δ Parking (1985)

Coordinates:

N or S	E or W

Origin

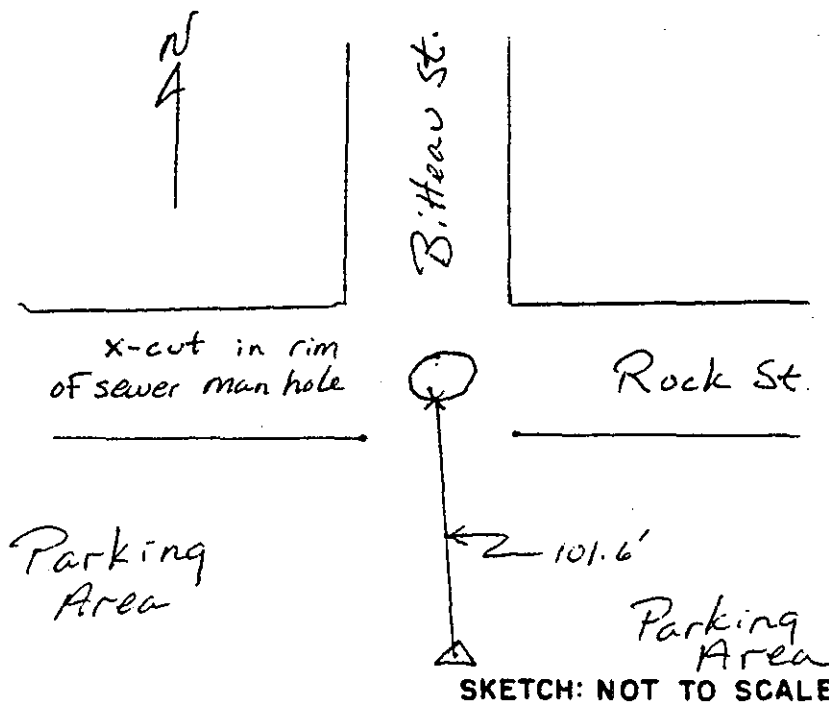
REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO

REFERENCES:

FIELD BOOK NO. R342309



REMARKS:

Δ Parking is a Pk. nail in the blacktop
parking area on the South side of Rock St
and Bittan St.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

(11)

Waterway:

Acushnet River

Station:

Δ BIT

Coordinates:

N or S	E or W

Origin

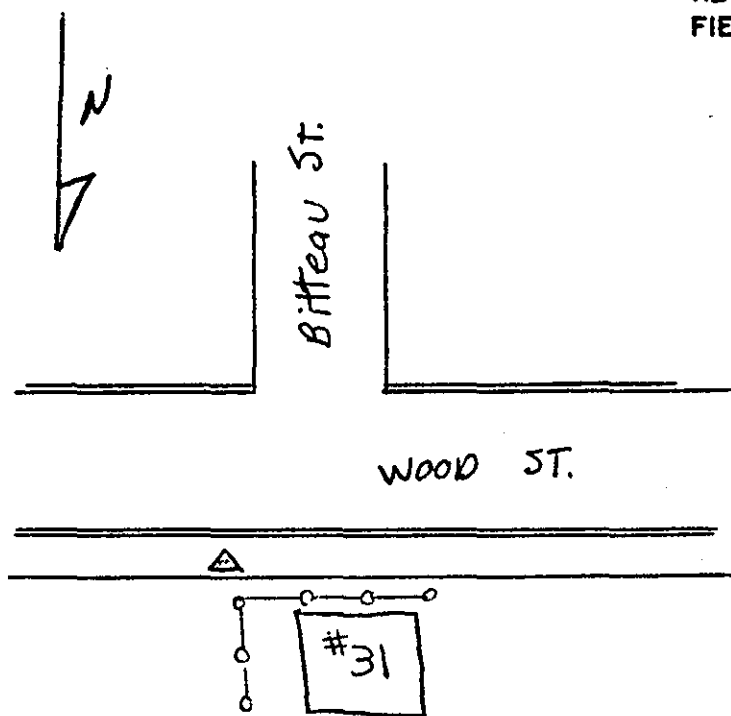
REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO

REFERENCES:

FIELD BOOK NO. R#H 2309



SKETCH: NOT TO SCALE

REMARKS:

Δ BIT IS A P.K. NAIL IN SIDEWALK
ON THE N. SIDE OF WOOD ST. AT INTERSECTION
OF 2nd BITTEAU ST.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

(12)

Waterway: Acushnet River

Station: Δ Wood (1985)

Coordinates:

N or S	E or W

Origin: _____

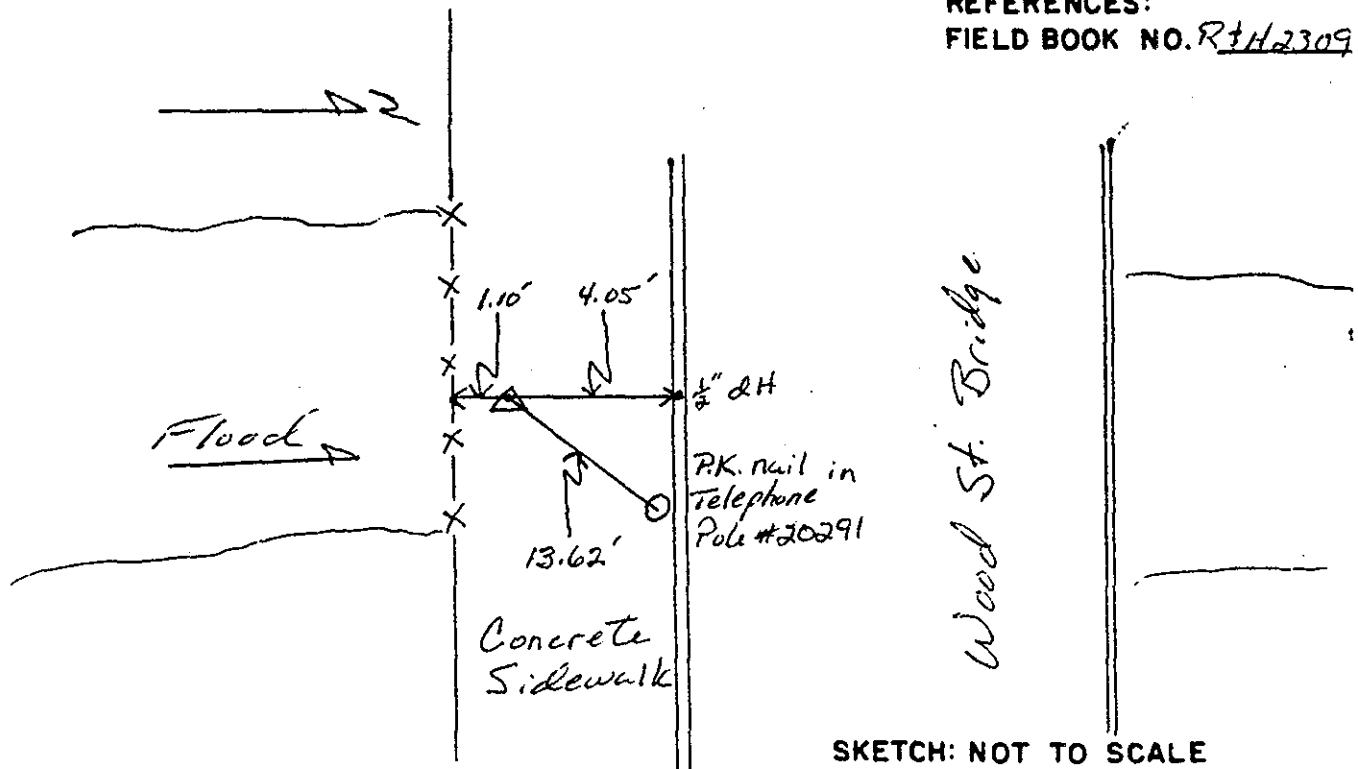
REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO
<u>Δ Bit (1985)</u>	<u>131°-06'-57"</u>	<u>Red Brick Church</u>
	<u>89°-09'-37"</u>	<u>Spire</u>
	<u>100°-14'-18"</u>	<u>Most Westerly Sub. Stn. Tunnel</u>
		<u>Most Easterly End of Tunnel</u>

REFERENCES:

FIELD BOOK NO. RTH2309



SKETCH: NOT TO SCALE

REMARKS:

Δ Wood is a RK. nail in the sidewalk
on the South side of the Wood St. Bridge

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

13

Waterway:

Acushnet River

Station:

Δ Belle (1985)

Coordinates:

N or S	E or W

Origin

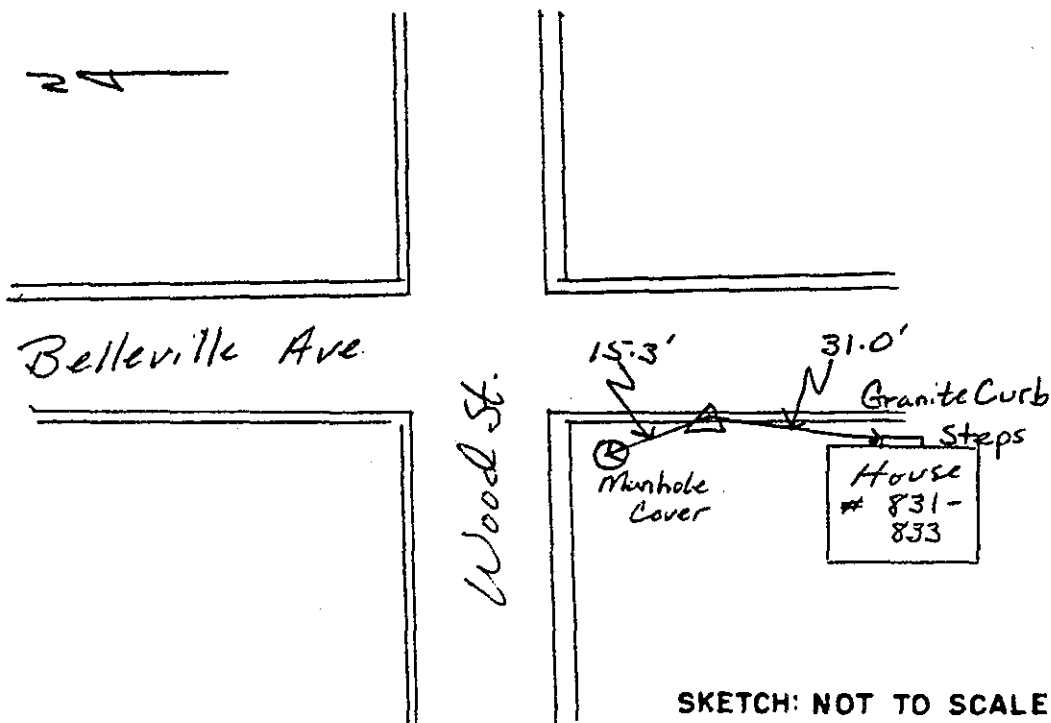
REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO

REFERENCES:

FIELD BOOK NO R3H2309



REMARKS:

Δ Belle is a 1/2" d.H. in a granite curb
along the sidewalk on Belleville St. It
is approximately 20' South of the intersection
of Wood St. It is on the S.W. corner

U.S.A. Engineer Division
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New England

SURVEY STATION DATA

(14)

Waterway: Acushnet River

Station: Δ Hyd. (1985)

Coordinates:

N or S	E or W

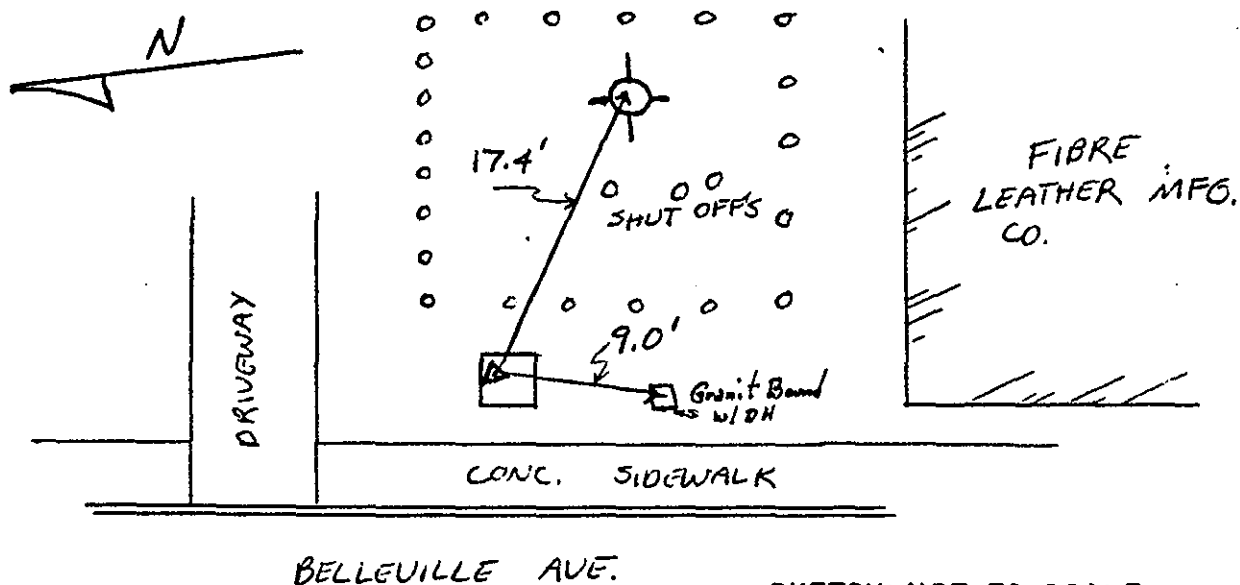
Origin

REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO

REFERENCES:
FIELD BOOK NO. REH 2309



SKETCH: NOT TO SCALE

REMARKS:

Δ Hyd. IS A 1/2" D.H. IN 20" x 20" CONC
FOOTING ON EAST SIDE OF BELLEVILLE AVE. AT
N. END OF FIBRE LEATHER MFG. CO.

U.S.A. Engineer Division
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New England

SURVEY STATION DATA

(15)

Waterway:

Acushnet River

Station:

Δ Mill (1985)

Coordinates:

N or S	E or W

Origin

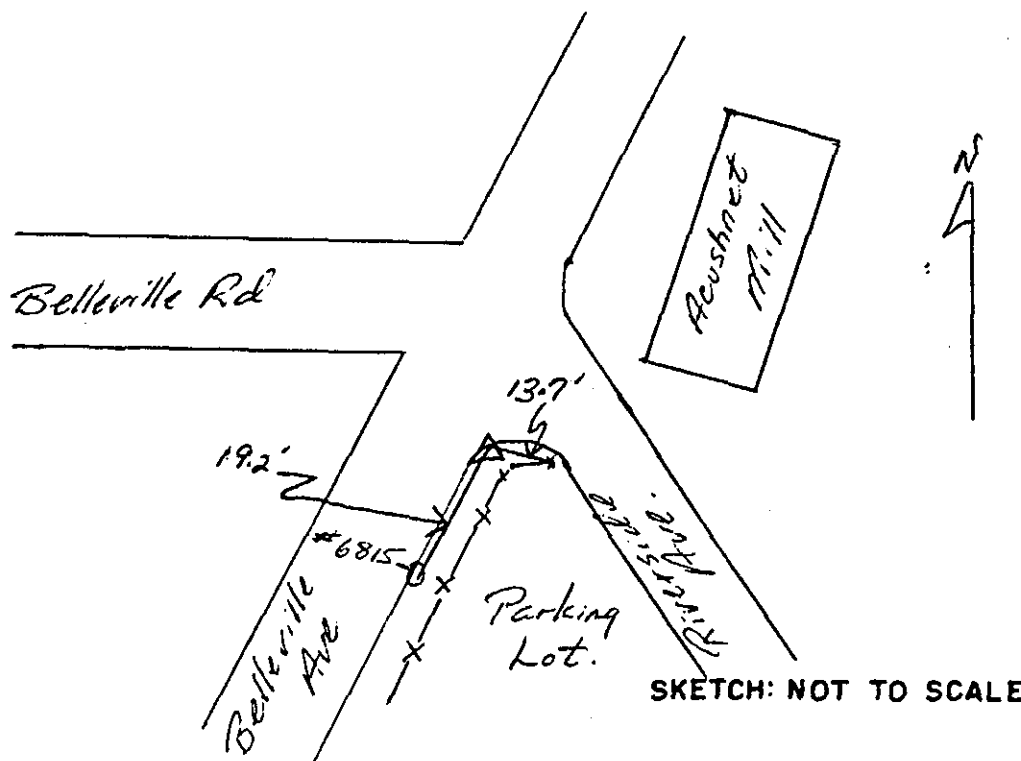
REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO

REFERENCES:

FIELD BOOK NO. R1H 2519
2309



REMARKS:

Δ Mill is a 1/2" d.H. in granite curb
at intersection of Belleville Ave and Riverside Ave

U.S.A. Engineer Division
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SURVEY STATION DATA

(16)

Waterway: Acushnet River

Station: Δ Sun (1985)

Coordinates:

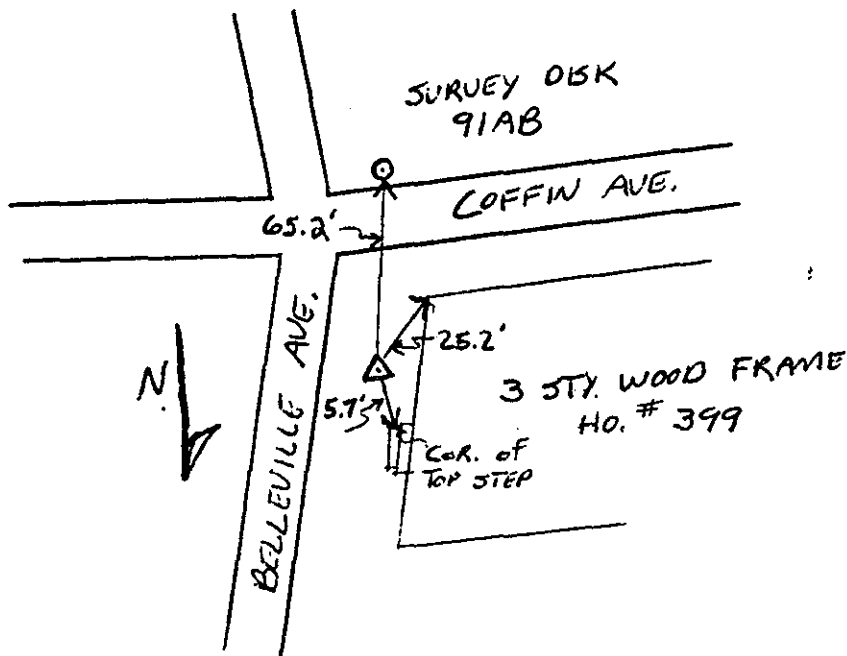
N or S	E or W

Origin

REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO	00° 00' 00" on	ANGLE	TO

REFERENCES:
FIELD BOOK NO. R & H 2309



SKETCH: NOT TO SCALE

REMARKS:

Δ SUN IS A 1/2" D.H. IN CONCRETE SIDEWALK.
ON WEST SIDE OF BELLEVILLE AVE. & N. OF
COFFIN AVE.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

17

Waterway:

Acushnet River

Station:

Δ Slope (1985)

Coordinates:

N or S	E or W

Origin

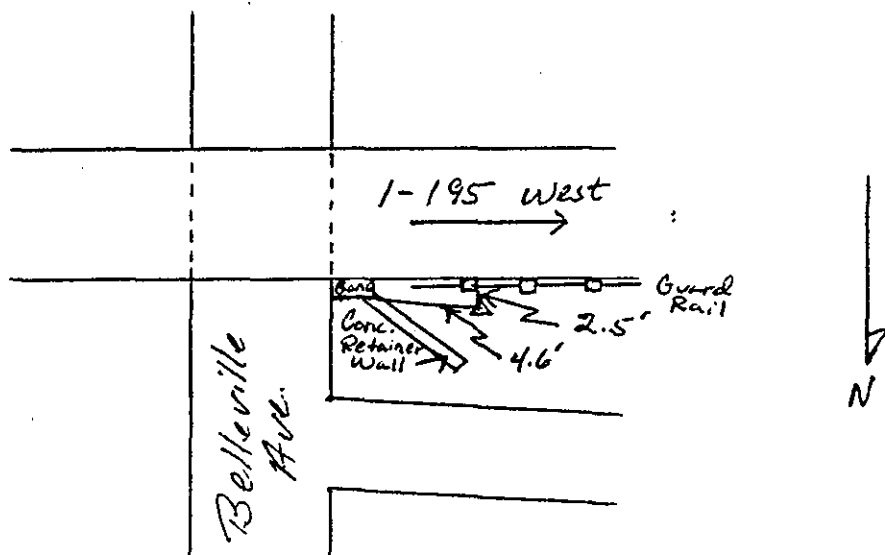
REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO

REFERENCES:

FIELD BOOK NOR H2309



SKETCH: NOT TO SCALE

REMARKS:

Δ Slope is an oak stake flush with the
ground on the North side of I-195 at
the North West corner of the overpass of
Belleville Ave.

U.S.A. Engineer Division
Corps of Engineers
New England

SURVEY STATION DATA

18

Waterway: Boushock River

Station: Δ West 2 (85)

Coordinates:

N or S	E or W

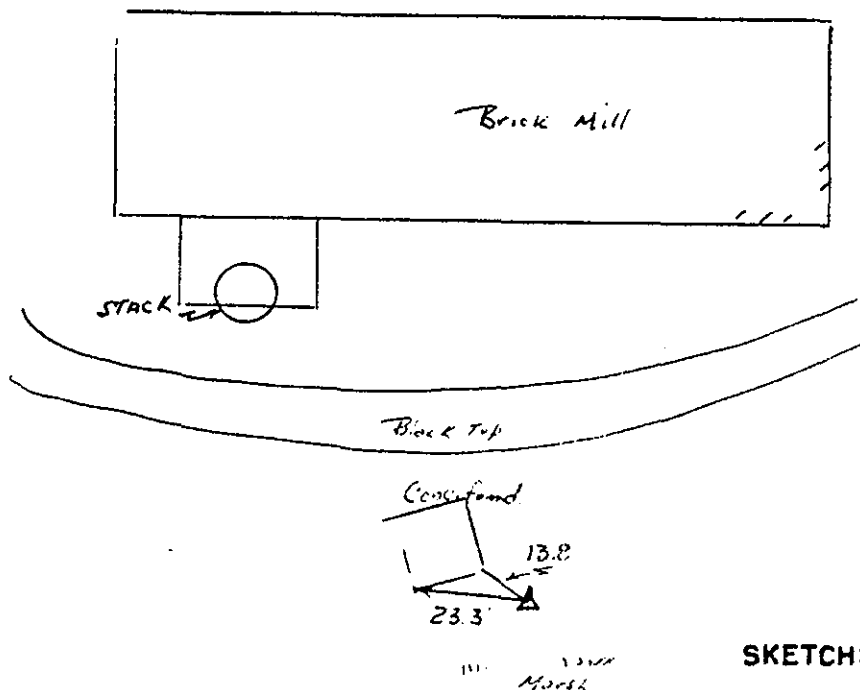
Origin

REFERENCE ANGLES

00° 00' 00" on	ANGLE	TO

00° 00' 00" on	ANGLE	TO
Δ Veranda (85)	18° 06' 47"	Weather Vane on School Cupola
	87° 48' 42"	West Westerly Radio Tower
	297° 47' 58"	Wind Mill

REFERENCES: R & H
FIELD BOOK NO. 2309



SKETCH: NOT TO SCALE

REMARKS: Δ West 2 (85) is a 1 1/2' Sq. d/w. p. b. flush w/ground on high ground between canal & H. Bldg.

b. Project Site

The site is the Upper Acushnet River Estuary Superfund Site in New Bedford, MA. A general project location plan is included in Section 10.

c. Purpose

The authorized seismic surveys on water were required to determine depths to rock in the estuary and the engineering characteristics and distributions of bottom sediments.

d. Scope of Investigation

Survey and exploration instructions, which were provided by the Army Corps of Engineers, New England Division, are included in Section 3a. The subsurface investigation program included about 17,000 feet of seismic survey lines.

Work under this delivery order consisted of locating nineteen seismic lines with horizontal and vertical control. Mean Low Water (MLW) was the datum used on all seismic lines.

SECTION 4

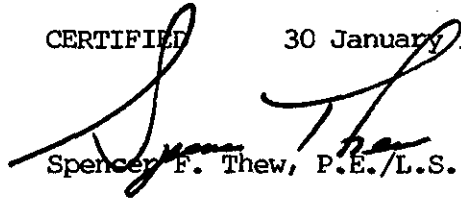
QUALITY CONTROL

a. General Certification Statement

I hereby certify that the referenced records, equipment and procedures were used to perform the subsurface exploration described herein. I also certify that the work was performed in a professional manner and meets the requirements set forth in the delivery order. This report has been subject to my review and is both complete and technically accurate.

CERTIFIED

30 January 1986


Spencer F. Thew, P.E./L.S.

b. Records Taken

The records taken were seismograms which consist of a photographic record of the seismic signals detected by an array of hydrophones. These records are available for perusal at Weston Geophysical Corporation, Post Office Box 550, Westboro, MA 01581, (617)366-9191.

c. Equipment Used

The equipment used in the seismic survey was a Bolt air gun with a 40 inch³ chamber, a 12-trace marine refraction system with hydrophone spacings of 40 feet, and a recording system consisting of a geophysical amplifier and filter system manufactured by Weston Geophysical with a recording oscillograph. Further information regarding the equipment may be found in Section 3 and Appendix A of Weston Geophysical's report, which is found in its entirety in Appendix 1 of this report.

d. Procedures

The field procedures for data acquisition may be found in Appendix A of Weston Geophysical's report, which is found in Appendix 1 of this report.

SECTION 5
SUMMARY OF ACTIVITIES
AND
TELEPHONE LOG

TABLE 1

SUMMARY OF ACTIVITIES

<u>Date</u>	<u>Activity</u>
10/14	Monday: mobilize to site, meet with Weston Geophysical to coordinate work, locate survey control, hold safety meeting.
10/15	Tuesday: shoot seismic lines 1(1A) for a total of 5000 feet.
10/16	Wednesday: shoot seismic lines 2(2A), 3(3A) and B(B1) for a total of 7900 feet.
10/17	Thursday: shoot seismic lines A(A1), C(C1), D, E(E1), F(F1), G(G1) for a total of 4010 feet.

TABLE 2

TELEPHONE LOG

<u>Date</u>	<u>Conversation</u>
10/16	Wednesday: surveyor requested information regarding vertical control